# AUDIT REPORT



2023

# Security Assessment Safereum Token

October 13, 2023

Audit Status: Pass

Audit Edition: Advance





## **Risk Analysis**

#### **Classifications of Manual Risk Results**

Classification	Description	
Critical	Danger or Potential Problems.	
Major	Be Careful	
Minor	Pass, Not-Detected or Safe Item.	
<ul><li>Informational</li></ul>	Function Detected	

#### **Manual Code Review Risk Results**

Contract Priviledge	Description			
Oan mint?	Pass			
● Edit taxes over 25%?	Pass			1
Max Tx?	Pass		Ī	1
Max Wallet?	Pass			1
Has to enable trading?	Trading is already enabled.		1	
Modify Tax	Pass			1
Can blacklist?	Pass			1
● Is Honeypot?	Liquidity has not been added			1
Trading Cooldown	Not Detected		1	1
Can Pause Trade?	Pass	9	1	Ī

Not Detected



AUDIT		TOP WELL
Contract Priviledge	Description	
S Is Proxy??	Not Detected	
Is Anti Whale?	Not Detected	
Is Anti Bot?	Not Detected	9111
Is Blacklist?	Not Detected	
Blacklist Check	Pass	
is Whitelist?	Not Detected	
Buy Tax	0	
Sell Tax	0	
Ocan Take Ownership?	Not Detected	
Hidden Owner?	Not Detected	
<ul><li>Owner</li></ul>	0x90276e1f7FE59C62CB10d4527Ff071A012ef0d2E	)
Self Destruct?	Not Detected	
Other?	Not Detected	
Other?	Not Detected	
<ul><li>Holders</li></ul>	1	
<ul><li>Auditor Confidence</li></ul>	Medium	

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.







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## **Assessment Summary**

This report has been prepared for Safereum Token on the Binance Smart Chain network. AnalytixAudit provides both client-centered and user-centered examination of the smart contracts and their current status when applicable. This report represents the security assessment made to find issues and vulnerabilities on the source code along with the current liquidity and token holder statistics of the protocol.

A comprehensive examination has been performed, utilizing Cross Referencing, Static Analysis, In-House Security Tools, and line-by-line Manual Review.

The auditing process pays special attention to the following considerations:

- Testing the smart contracts against both common and uncommon attack vectors.
- Inspecting liquidity and holders statistics to inform the current status to both users and client when applicable.
- Assessing the codebase to ensure compliance with current best practices and industry standards.
- Verifying contract functions that allow trusted and/or untrusted actors to mint, lock, pause, and transfer assets.
- Cross referencing contract structure and implementation against similar smart contracts produced by industry leaders





# **Project Overview**

## **Token Summary**

Parameter	Result
Address	0xA0E57d0B87a6fE057dF2Fa0aE228A02460a24e56
Name	Safereum
Token Tracker	Safereum (SAFEREUM)
Decimals	18
Supply	1,000,000,000
Platform	Binance Smart Chain
compiler	v0.8.4+commit.c7e474f2
Contract Name	StandardToken
Optimization	No
LicenseType	MIT
Language	Solidity
Codebase	https://bscscan.com/address/0xA0E57d0B87a6fE057dF2Fa0aE228A02460a24e56#code
Payment Tx	Corporate







# **Project Overview**

## **Simulation Summary**

Parameter	Result
Transfer From Owner	Pass
Transfer From Holder	Pass
Add Liquidity	Pass
RemoveLiquidity	Pass
Buy from Owner	Pass
Buy from Holder	Pass
Sale from Owner	Pass
Sale from Holder	Pass
Remove Liquidity	Pass
SwapAndLiquify	Pass
SwapAndSale w/Fee	Pass
SwapAndSale TX	
SwapAndSaleNoFee	Pass
SwapAndSale No/Fee TX	
ExcludeFromFees	Pass



PinkSale



AUDIT		
Parameter	Result	9
Pool Creation	Pass	
Pool Creation TX		
Pool Finalize	Pass	
Pool Finalize TX		
Enable	Pass	

The following quick summary it's added to the project overview; however, there are more details about the audit and its results. Please read every detail.









Name	Contract	Live	
Safereum	OxAOE57dOB87a6fE057dF2Fa0aE228A02460a24e56	Yes	

#### **TestNet Contract was Not Assessed**

### **Solidity Code Provided**

SollD	File Sha-1	FileName
SAFEREUM	9eb45379dccf041954c13960d4e559933834c11	SAFEREUM.sol
SAFEREUM		
SAFEREUM		
SAFEREUM		







## **KYC Information**

The Project Owners of Safereum is not KYC.

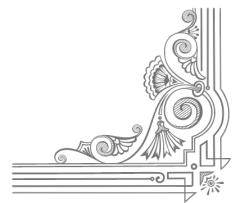
**KYC Information Notes:** 

**Auditor Notes: No info founde** 

**Project Owner Notes:** 









# Smart Contract Vulnerability Checks

The Smart Contract Weakness Classification Registry (SWC Registry) is an implementation of the weakness classification scheme proposed in EIP-1470. It is loosely aligned to the terminologies and structure used in the Common Weakness Enumeration (CWE) while overlaying a wide range of

weakness variants that are specific to smart contracts.

weakness variants that are specific to smart contracts.				
ID	Severity	Name	File	location
SWC-100	Pass	Function Default Visibility	SAFEREUM.sol	L: 0 C: 0
SWC-101	Pass	Integer Overflow and Underflow.	SAFEREUM.sol	L: 0 C: 0
SWC-102	Pass	Outdated Compiler Version file.	SAFEREUM.sol	L: 0 C: 0
SWC-103	Pass	A floating pragma is set.	SAFEREUM.sol	L: 0 C: 0
SWC-104	Pass	Unchecked Call Return Value.	SAFEREUM.sol	L: 0 C: 0
SWC-105	Pass	Unprotected Ether Withdrawal.	SAFEREUM.sol	L: 0 C: 0
SWC-106	Pass	Unprotected SELFDESTRUCT Instruction	SAFEREUM.sol	L: 0 C: 0
SWC-107	Pass	Read of persistent state following external call.	SAFEREUM.sol	L: 0 C: 0
SWC-108	Pass	State variable visibility is not set	SAFEREUM.sol	L: 0 C: 0
SWC-109	Pass	Uninitialized Storage Pointer.	SAFEREUM.sol	L: 0 C: 0
SWC-110	Pass	Assert Violation.	SAFEREUM.sol	L: 0 C: 0



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	ID	Severity	Name	File	location
	SWC-111	Pass	Use of Deprecated Solidity Functions.	SAFEREUM.sol	L: 0
	SWC-112	Pass	Delegate Call to Untrusted Callee.	SAFEREUM.sol	L: 0 C: 0
	SWC-113	Pass	Multiple calls are executed in the same transaction.	SAFEREUM.sol	L: 0 C: 0
	SWC-114	Pass	Transaction Order Dependence.	SAFEREUM.sol	L: 0 C: 0
	SWC-115	Pass	Authorization through tx.origin.	SAFEREUM.sol	L: 0 C: 0
	SWC-116	Pass	A control flow decision is made based on The block.timestamp environment variable.	SAFEREUM.sol	L: 0 C: 0
	SWC-117	Pass	Signature Malleability.	SAFEREUM.sol	L: 0 C: 0
	SWC-118	Pass	Incorrect Constructor Name.	SAFEREUM.sol	L: 0 C: 0
	SWC-119	Pass	Shadowing State Variables.	SAFEREUM.sol	L: 0 C: 0
	SWC-120	Pass	Potential use of block.number as source of randonmness.	SAFEREUM.sol	L: 0 C: 0
	SWC-121	Pass	Missing Protection against Signature Replay Attacks.	SAFEREUM.sol	L: 0 C: 0
	SWC-122	Pass	Lack of Proper Signature Verification.	SAFEREUM.sol	L: 0 C: 0
	SWC-123	Pass	Requirement Violation.	SAFEREUM.sol	L: 0 C: 0
),	SWC-124	Pass	Write to Arbitrary Storage Location.	SAFEREUM.sol	L: 0 C: 0
	SWC-125	Pass	Incorrect Inheritance Order.	SAFEREUM.sol	L: 0



ID	Severity	Name	File	location
SWC-126	Pass	Insufficient Gas Griefing.	SAFEREUM.sol	L: 0 C 0
SWC-127	Pass	Arbitrary Jump with Function Type Variable.	SAFEREUM.sol	L: 0 C: 0
SWC-128	Pass	DoS With Block Gas Limit.	SAFEREUM.sol	L: 0 C: 0
SWC-129	Pass	Typographical Error.	SAFEREUM.sol	L: 0 C: 0
SWC-130	Pass	Right-To-Left-Override control character (U +202E).	SAFEREUM.sol	L: 0 C: 0
SWC-131	Pass	Presence of unused variables.	SAFEREUM.sol	L: 0 C: 0
SWC-132	Pass	Unexpected Ether balance.	SAFEREUM.sol	L: 0 C: 0
SWC-133	Pass	Hash Collisions with Multiple Variable Length Arguments.	SAFEREUM.sol	L: 0 C: 0
SWC-134	Pass	Message call with hardcoded gas amount.	SAFEREUM.sol	L: 0 C: 0
SWC-135	Pass	Code With No Effects (Irrelevant/Dead Code).	SAFEREUM.sol	L: 0 C: 0
SWC-136	Pass	Unencrypted Private Data On-Chain.	SAFEREUM.sol	L: 0 C: 0

We scan the contract for additional security issues using MYTHX and industry-standard security scanning tools.







## **Inheritance**

The contract for Safereum has the following inheritance structure.

The Project has a Total Supply of 1,000,000,000





# **Smart Contract Advance Checks**

				W 201
ID	Severity	Name	Result	Status
SAFEREUM- 01	Minor	Potential Sandwich Attacks.	Pass	Not-Found
SAFEREUM- 02	Minor	Function Visibility Optimization	Pass	Not-Found
SAFEREUM- 03	Minor	Lack of Input Validation.	Pass	Not-Found
SAFEREUM- 04	Major	Centralized Risk In addLiquidity.	Pass	Not-Found
SAFEREUM- 05	Minor	Missing Event Emission.	Pass	Not-Found
SAFEREUM- 06	Minor	Conformance with Solidity Naming Conventions.	Pass	Not-Found
SAFEREUM- 07	Minor	State Variables could be Declared Constant.	Pass	Not-Found
SAFEREUM- 08	Minor	Dead Code Elimination.	Pass	Not-Found
SAFEREUM- 09	Major	Third Party Dependencies.	Pass	Not-Found
SAFEREUM- 10	Major	Initial Token Distribution.	Pass	Not-Found
SAFEREUM- 11	Major	Complexity on the tax calculations.	Pass	Not-Found
SAFEREUM- 12	Major	Centralization Risks In The X Role	Pass	Not-Found
SAFEREUM-	Informational	Extra Gas Cost For User	Pass	Not-Found



#### **ANALYTIX AUDIT**

AUDIT				TOR WELL
ID	Severity	Name	Result	Status
SAFEREUM- 14	Medium	Unnecessary Use Of SafeMath	Pass	Not-Found
SAFEREUM- 15	Medium	Symbol Length Limitation due to Solidity Naming Standards.	Pass	Not-Found
SAFEREUM- 16	Medium	Invalid collection of Taxes during Transfer.	Pass	Not-Found
SAFEREUM- 17	Informational	Conformance to numeric notation best practice.	Pass	Not-Found
SAFEREUM- 18	Informational	Enable Trade and Exclude Exist to create a whitelist.	Pass	Not-found







# **Technical Findings Summary**

#### **Classification of Risk**

Severity	Description
Critical	Risks are those that impact the safe functioning of a platform and must be addressed before launch. Users should not invest in any project with outstanding critical risks.
<ul><li>Major</li></ul>	Risks can include centralization issues and logical errors. Under specific circumstances, these major risks can lead to loss of funds and/or control of the project.
<ul><li>Medium</li></ul>	Risks may not pose a direct risk to users' funds, but they can affect the overall functioning of a platform
<ul><li>Minor</li></ul>	Risks can be any of the above but on a smaller scale. They generally do not compromise the overall integrity of the Project, but they may be less efficient than other solutions.
1 Informational	Errors are often recommended to improve the code's style or certain operations to fall within industry best practices. They usually do not affect the overall functioning of the code.

### **Findings**

Severity	Found	Pending	Resolved
Critical	0	0	0
Major	0	0	0
<ul><li>Medium</li></ul>	0	0	0
<ul><li>Minor</li></ul>	0	0	0
<ul><li>Informational</li></ul>	0	0	0
Total	0	0	0





## **Social Media Checks**

Social Media	URL	Result
Twitter	https://twitter.com/Safereumbscvip	Pass
Other		Fail
Website	https://safereumbsc.vip/	Pass
Telegram	https://t.me/safereumbsc_portal	Pass

We recommend to have 3 or more social media sources including a completed working websites.

**Social Media Information Notes:** 

**Auditor Notes: undefined** 

**Project Owner Notes:** 









## **Assessment Results**

#### **Score Results**

Review	Score
Overall Score	90/100
Auditor Score	90/100
Review by Section	Score
Manual Scan Score	36/53
SWC Scan Score	37/37
Advance Check Score	17 /19

The Following Score System Has been Added to this page to help understand the value of the audit, the maximun score is 100, however to attain that value the project most pass and provide all the data needed for the assessment. Our Passing Score has been changed to 80 Points, if a project does not attain 80% is an automatic failure. Read our notes and final assessment below.

#### **Audit Passed**











## **Important Notes:**

- No High-Risk Issues or vulnerabilities were found.
- Always DYOR on the project itself.

### Auditor Score = 90 Audit Passed





## **Appendix**



### **Finding Categories**

#### **Centralization / Privilege**

Centralization / Privilege findings refer to either feature logic or implementation of components that actagainst the nature of decentralization, such as explicit ownership or specialized access roles incombination with a mechanism to relocate funds.

#### **Gas Optimization**

Gas Optimization findings do not affect the functionality of the code but generate different, more optimalEVM opcodes resulting in a reduction on the total gas cost of a transaction.

#### **Logical Issue**

Logical Issue findings detail a fault in the logic of the linked code, such as an incorrect notion on howblock.timestamp works.

#### **Control Flow**

Control Flow findings concern the access control imposed on functions, such as owneronly functionsbeing invoke-able by anyone under certain circumstances.

#### **Volatile Code**

Volatile Code findings refer to segments of code that behave unexpectedly on certain edge cases that mayresult in a vulnerability.

#### **Coding Style**

Coding Style findings usually do not affect the generated byte-code but rather comment on how to makethe codebase more legible and, as a result, easily maintainable.

#### **Inconsistency**

Inconsistency findings refer to functions that should seemingly behave similarly yet contain different code, such as a constructor assignment imposing different require statements on the input variables than a setterfunction.

#### **Coding Best Practices**

BRC 20 Conding Standards are a set of rules that each developer should follow to ensure the code meet a set of creterias and is readable by all the developers.



#### **Disclaimer**

AnalytixAudit has conducted an independent security assessment to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the reviewed code for the scope of this assessment. This report does not constitute agreement, acceptance, or advocation for the Project, and users relying on this report should not consider this as having any merit for financial advice in any shape, form, or nature. The contracts audited do not account for any economic developments that the Project in question may pursue, and the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude, and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are entirely free of exploits, bugs, vulnerabilities or deprecation of technologies.

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